DOCUMENT RESUME

ED 022 432 JC 680 288

By-Keene, James W.

A FOLLOW-UP STUDY OF THE REGISTERED NURSING PROGRAM.

Foothill Junior Coll. District, Cupertino, Calif.
Pub Date 29 May 68
Note-24p.
EDRS Price MF-$0.25 HC-$1.04
Descriptors-*ADMISSION CRITERIA, COLLEGE STUDENTS, DROPOUT CHARACTERISTICS, DROPOUT RESEARCH, *FOLLOWUP STUDIES, GRADUATE SURVEYS, INSTITUTIONAL RESEARCH, *JUNIOR COLLEGES, *NURSES, NURSING, QUESTIONNAIRES, *STUDENT CHARACTERISTICS
Identifiers-*American College Testing Program, Tests of General Educational Development

A followup study of the 1966 and 1967 graduates of the registered nurses program at Foothill College (Calif.) sought to identify characteristics which distinguished students who completed the program from those who did not graduate, analyze scores on the state licensing examination for the licensing of nurses to determine what significant differences exist among graduates, and obtain feedback from graduates which might be useful in improving the program. Data were collected from statistical records of the 45 graduates and 41 dropouts and from questionnaires completed by 16 of 21 selected graduates. Prior to the study, general criteria for admission to the program were (1) a high school diploma and a minimum grade point average of 2.0, (2) a minimum composite ACT score of 15, (3) a minimum grade of "C" in high school chemistry (or equivalent subject), and (4) a personal interview. Results of the study indicated that students with a high school grade point average of below 2.0 and those with ACT composite scores of below 15 are poor risks. Therefore no change was made in the first two entrance requirements. It was decided that the chemistry prerequisite should be restated without specific reference to minimum grade. Characteristically, the 1966 dropouts left the program because of academic failure while the 1967 dropouts left because of dissatisfaction or alienation. (DG)

RESEARCH REPORT

A Follow-up Study of the Registered Nursing Program May, 1968

De Anza
and
Foothill
Colleges

ED022432

FFICE OF INSTITUTIONAL RESEARCH
OOTHILL JUNIOR COLLEGE DISTRICT
250 Stevens Creek Boulevard, Cupertino, California 95014

JAMES W. KEENE, *Director*

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
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A FOLLOW-UP STUDY
OF THE
REGISTERED NURSING PROGRAM

By
James W. Keene
Director of Institutional Research
Foothill Junior College District
Los Altos Hills, California
May 29, 1968

UNIVERSITY OF CALIF.
LOS ANGELES

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INFORMATION

Foothill Junior College District

A FOLLOW-UP STUDY OF THE REGISTERED NURSING PROGRAM

Introduction

This brief study focuses on the two most recent classes to graduate from the Registered Nursing Program at Foothill College. It seeks first to identify those characteristics of the students who graduated which distinguish them from their classmates who did not graduate. Second, it seeks to analyze the scores made by graduates on the five components of the California State Board examination for the licensing of nurses to determine what significant differences, if any, exist among graduates in their abilities to handle the respective components. Third, it seeks to obtain feedback from graduates of the two classes which might be useful in improving the program.

It is almost trite to say that the objective of the study is to improve the Registered Nursing Program. More specifically, the study aims:

1. To provide objective, evaluated data to aid in improvement of the screening process by which students are selected to enter the program.
2. To seek indicators of weak areas in the curriculum for further examination and possible curriculum revision.

The Registered Nursing Program was moved to De Anza College upon the opening of that institution in September, 1967. The following members of the De Anza faculty served as an advisory committee to the study:

F. Marian Roberts, M.A., R.N., Director of Nursing
Murray E. Shipnuck, Ed.D., Assistant Dean of Students
Jean C. Trimble, M.S., R.N., Instructor
Jeanne O. Wilcox, M.S., R.N., Instructor

Selection and Success

The prerequisites for acceptance in the Registered Nursing Program are:

1. High School graduate with a minimum grade point average of 2.0.
2. Minimum composite ACT score of 15.
3. High school chemistry (or equivalent) with a grade of "C".
4. Personal interview.

The first three of these prerequisites are, as a practical matter, treated as general criteria rather than as absolute and inviolable prerequisites. For example, if a candidate has high school chemistry with a grade of "D" but otherwise appears to be a good risk, she may be accepted in the program, the chemistry prerequisite being waived in her case.

It will be noted that each of the three criteria are treated as thresholds, or "cutting scores." There is no assumption in this procedure that a potential student with an ACT composite score of 21 will do better than one with a score of 17, nor that a high school g.p.a. of 2.7 indicates a better chance of success than a g.p.a. of 2.2. The procedure merely states that a student with an ACT composite score of less than 15, or with less than a "C" in high school chemistry, or with a high school g.p.a. of less than 2.0 is just not a good risk. This last statement constitutes an hypothesis which can be tested against actual performance data.

It can be argued, however, that both ACT composite scores and high school g.p.a.'s constitute scales which proport to measure ability and therefore that, generally, students with the higher scores should do better. If this proves to be true in the case of either measure, or both, then a tool of some usefulness is available in ranking the likelihood of success of candidates as an aid in the selection process. This hypothesis is also subject to test against actual performance data.

Class of 1966

In the class of 1966, there were 22 graduates, on 21 of which statistical data are readily available. All were female. The oldest was 47 years old at graduation, the youngest was 20, and the median age was 22. The lowest ACT composite score was 16, the highest was 26, and the median score was 20.

Two of the students were high school dropouts admitted on the basis of scores on the General Education Development Test. The lowest high school g.p.a. reported was 2.29, the highest was 3.91, and the median was 2.83. Three of the students had less than a "C" in high school chemistry. Sixty-seven percent of the students were eligible to enter the State College system under present criteria. The median number of years of post high school education completed before entering the Registered Nursing Program was 1.0. All 22 graduates passed the state board licensing examination immediately after graduation.

From this same class of 1966, some 19 students were identifiable as dropouts. Statistical data are readily obtainable on 18 of these. All were female. The eldest was 56 years old in 1966, the youngest was 20, and the median age was 22. The lowest ACT composite score was 16, the highest was 24, and the median score was 20. One of the students was a high school dropout admitted on the basis of GED Test scores. The lowest high school g.p.a. reported was 1.66, three were reported below 2.0, the highest was 3.61, and the median was 2.49. Three of the students has less than a "C" in high school chemistry, two of which also had high school g.p.a.'s of less than 2.0. Thirty-three percent of these students were eligible to enter the State College system under present criteria. The median number of years of post high school education completed before entering the Registered Nursing Program was 1.0.

Class of 1967

In the class of 1967, there were 23 graduates, on 22 of which statistical data are readily available. All were female. The eldest was 33 years old at graduation, the youngest was 20, and the median age was 21. The lowest ACT composite score was 15, the highest was 26, and the median score was 19. The lowest high school g.p.a. reported was 2.09, the highest was 3.76, and the median was 2.80. Six of the students had less than a "C" in high school chemistry. Sixty percent of the students were eligible to enter the State College system under present criteria. The median number of years of post high school education completed before entering the Registered Nursing Program was 1.0. Six of the 23 graduates failed to pass the state board licensing examination immediately after graduation. Five of these six have subsequently passed reexaminations. (No information has been received on the sixth graduate.)

From this same class of 1967, some 22 students were identifiable as dropouts. Statistical data are readily obtainable on 21 of these. All were female. The eldest was 33 years old in 1967, the youngest was 20, and the median age was 21. The lowest ACT composite score was 10, two scores were below 15, the highest was 28, and the median score was 21. One of the students was a high school dropout admitted on the basis of GED Test scores. The lowest high school g.p.a. reported was 1.22, two were reported below 2.0, the highest was 3.16, and the median was 2.61. One of the students had less than a "C" in high school chemistry. Forty-four percent of these students were eligible to enter the State college system under present criteria. The median number of years of post high school education completed before entering the Registered Nursing Program was 0.0.

High School Grade Point Average

No student in the two classes considered reporting a high school grade point average of less than 2.0 graduated. Raising the cutting score to 2.1 would have eliminated one student who graduated and one who dropped out. Raising the cutting score to 2.2 would have eliminated one additional student who graduated and three more who dropped out, while raising it to 2.3 would have eliminated two more who graduated and two more who dropped out. Cumulatively, this can be shown in tabular form:

Cutting Score	2.1	2.2	2.3
Graduated	1	2	4
Dropped Out	1	4	6

Cumulative Number of Students Eliminated by Raising Cutting Score, High School Grade Point Average (Excluding Waivers)

It would appear then, on the basis of the limited evidence at hand, that students with high school g.p.a.'s of below 2.0 are poor risks. However, a number of students with g.p.a.'s between 2.0 and 2.3 do complete the program successfully.

With respect to the validity of high school g.p.a. as a scale to predict success (as distinquished from its use as a minimum prerequisite) the performance of all students in both classes must be considered:

	Graduated	Dropped Out (Corrected for Waivers)
Class of 1966	2.90	2.69
Class of 1967	2.84	2.61
Both Classes Combined	2.87	2.64

Mean High School G.P.A.

A statistical test[1] shows the probability that this difference is by chance less than one in fifty (.02). In operational terms, this means that in a situation in which there are more qualified applicants than there are vacancies in the program, the ranking of candidates by high school g.p.a.'s would be sound and logical.

ACT Composite Scores

No student in the two classes considered reporting an ACT composite score below 15 graduated (i.e., two students, one with a score of 10, the other with 11, failed to graduate). Raising the cutting score to 16 would have eliminated two students who graduated and one who dropped out. Raising the cutting score to 17 would have eliminated one additional student who graduated and three additional students who dropped out. Raising the cutting score to 18 would have eliminated four additional students who graduated and one additional student who dropped out. Cumulatively, this can be shown in tabular form:

Cutting Score	16	17	18
Graduated	2	3	7
Dropped Out	1	4	5

Cumulative Number of Students Eliminated by Raising Cutting Score
ACT Composite
(Excluding Waivers)

It would appear then, on the basis of the limited evidence at hand (two cases) that students with ACT composite scores of below 15 are poor risks.

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1. The t* test for difference of means of two populations, Dixon and Massey, 1957, pp 122-124.

However, a significant number of students with scores of 15, 16, or 17 do complete the program successfully.

When the validity of ACT composite scores of 15 and above as predictors of success are considered, an unexpected picture emerges:

	Graduated	Dropped Out (Corrected for Waivers)
Class of 1966	20.52	21.13
Class of 1967	20.20	21.94
Both Classes Combined	20.37	21.56

Mean ACT Composite Score

This difference is not statistically significant. A similar examination of the scores of each of the ACT subject tests (English, Mathematics, Social Science, Natural Science) shows a corresponding lack of statistical significance.[1]

It would appear then, that the evidence at hand does not justify the use of the ACT score, above 15, in the ranking of candidates for selection.

High School Chemistry

The 1967-68 De Anza Catalog lists as a prerequisite to admission to the program ". . . high school chemistry or Chemistry 10 or Chemistry 51 . . ." without reference to the final grade in those courses.[2] The brochure published by the District[3] lists as a prerequisite for admission . . . "Completion of a laboratory course in chemistry with at least a "C" grade. . " It has already been noted that both classes and both categories contain students who were admitted with less than a "C" grade in high school (or college) chemistry:

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1. The Director of Nursing was able to supply a reason for withdrawal as stated by the student at the time of dropout (see infra). It was thus possible to recalculate statistical significance correcting for reasons beyond control of the college (e.g., pregnancy, family moved). Again ACT was not significant in predicting success.
2. P130
3. "Opportunities as a Registered Nurse."

	Graduated	Dropped Out
Class of 1966	15.00	25.00
Class of 1967	27.27	6.25
Both Classes Combined	21.43	14.29

Percent Posting Less than a "C" in Chemistry Prerequisite

There is a requirement within the profession of nursing for a laboratory course in chemistry. It is readily apparent, however, that the validity of the requirement for obtaining a grade of "C" in that course is completely unsupported by the evidence at hand.

Conclusions

It would appear, therefore, on the basis of the data available in this brief study, that - -

1. No change in the requirement for a high school g.p.a. of 2.0 as a prerequisite for admission to the Registered Nursing Program is indicated.
2. Similarly, no change in the requirement for a minimum ACT composite score of 15 is indicated.
3. The requirement for chemistry as a prerequisite should be restated, "Completion of a laboratory course in chemistry at the high school or college level," or words to that effect, without specific reference to a minimum grade of "C".
4. In the event it becomes necessary or convenient to rank candidates for admission to the program, high school g.p.a. may be used with statistical justification, in whole or in part, in such ranking.
5. The use of ACT scores, component or composite, for ranking of candidates for admission is not justified statistically.

Performance on the State Licensing Examination

The State Licensing Examination is normally taken immediately after graduation. It consists of five individual tests:

Medical Nursing	(MED NSG)
Surgical Nursing	(SRG NSG)
Obstetrical Nursing	(OBS NSG)
Pediatric Nursing	(NSG CHL)
Psychiatric Nursing	(PSY NSG)

The examination is administered nation-wide and in parts of Canada. Raw scores are converted to standard scores on a nation-wide basis; the standard score mean being 500 with a standard deviation of 100. Each state and province then sets its own minimum passing score. California, along with most other states, sets this score at 350, which is the 7th percentile. Passing the examination requires a passing score on all five tests. If one or two tests are failed, retests are permitted on the failed tests only.

This procedure permits relatively fine comparisons to be made between performances on the component tests of the same examination. Some generalizations are also possible between different examinations:

	MED NSG	SRG NSG	OBS NSG	NSG CHL	PSY NSG
Class of 1963 (N=12)	585	640	636	572	544
Class of 1964 (N=14)	499	507	543	526	492
Class of 1965 (N=25)	536	559	589	584	558*
Class of 1966 (N=22)	544	571	610	589	620
Class of 1967 (N=22)	476**	492	470**	456	571

Average (Mean) Scores on State Licensing Examination

The figure above shows only the results of the examination given immediately after the graduations of the respective classes. Two graduates in the Class of 1964 took the examination late; one failed the MED NSG, SRG, NSG and NSG CHL tests.

One graduate in the Class of 1965 took the examination late and failed the PSY NSG test.

One graduate in the Class of 1967 took the examination late and failed both MED NSG and NSG CHL tests. The Class of 1964, therefore, shows one failure in sixteen graduates; the Class of 1965 shows two failures in twenty-six graduates; the Class of 1967 shows six failures in twenty-three graduates; and the Classes of 1963 and 1966 show no failures. The probability that in

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* One failure

** Three failures in each category for five examination failures (one graduate failed both tests).

these five classes, six or more failures would be in one class of twenty-three graduates by chance is approximately one in five hundred.

Analysis of the scores made by each class on the component tests reveals that:

1. The Class of 1966 did significantly poorer on MED NSG than on the other tests (Sig. @ .005).
2. The Class of 1966 did significantly better on PSY NSG than on the other tests (Sig. @ .01).
3. The Class of 1967 did significantly better on PSY NSG than on the other tests (Sig. @ .001).
4. The differences among the mean scores of the other classes on the tests are not significant (at the .05 level).

Conclusions

A trend may be developing in the scores made on the Psychiatric Nursing Test which could have implications for the Nursing Faculty. An analysis of the scores posted by the Class of 1968 should be made as soon as they are available to determine if a trend is in fact developing.

Explanation of the poor performance of the class of 1967 on the Licensing Examination is beyond the scope of this investigation. The Nursing Faculty may wish to pursue this topic.

The Dropout

As noted above, the dropout tended to have a lower high school g.p.a. than did the graduate, however the dropout showed no tendancy to score lower on the ACT, component or composite, nor to have posted "D" as opposed to a "C" or better in the chemistry prerequisite when compared to the graduate.

It is generally recognized that when students do drop out they tend to state reasons for so doing that are socially acceptable as opposed to the real, the basic, or the underlying reasons. Nevertheless, the stated reason for dopping out can be presumed to have some value, particularly in the case herein being considered:

1. In a small, highly integrated career curriculum the faculty tend to know the students and the students tend to know each other. This should moderate any tendancy to give a reason for dropping out which does not contain a substantial degree of truth. In an environment in which faculty and students know each other well, a reason fabricated from the whole cloth would just not be socially acceptable because the nursing faculty would recognize easily its lack of validity.
2. Academic failure, in a nursing subject or in a non-nursing subject, is an objective fact which cannot be concealed. While it is true that academic failure may be due to lack of ability or lack of application, the failure itself is objective fact and is, in many cases, the real as well as the stated reason for dropping out.

As has been previously noted,[1] stated reason for dropping out, as of the time of exit, is available on every dropout in both classes:

	Class of 1966	Class of 1967
External reasons (Husband transfered, family moved, pregnancy, family problems, health)	5	4
Transferred to another para-medical program (Dental assisting, vocational nursing)		2
Dissatisfaction/Alienation (Dislikes nursing, dislikes college, unsure of career goals, considers load too heavy)	4*	9
Failure ("D" or below) in academic (non-nursing(subject(s)	7	6**
Failure ("D" or below) in nursing subject(s)	3	6
Total	19	22

* Includes one who was currently earning a "D" in a nursing subject.

** Includes five who are also included as failures in nursing subjects.

1. See Footnote 1, Page 5, supra.

It will be noted that in the class of 1966 the mode is Academic Failure, while in the Class of 1967 the mode is Dissatisfaction/Alienation. In both classes the bulk of the dropouts occurred early in the program, the median dropout date in both classes being at the end of the first semester. The difference between the classes, although apparently large, is not statistically significant.

Follow-up Considered

When the study was originally conceived it was envisioned that some sort of a follow-up on the dropouts would be attempted. However, when the data were examined it was discovered that less than one-third (31.7%) of the dropouts survived the two semesters of the freshman year, only one (4.8%) in each class had begun the fall semester of the sophomore year, and that the addresses of record of the dropouts were from 17 months to 27 months old. Since only a small number had experienced two full semesters of the program, the task of contacting all, or almost all, of these in order to obtain a meaningful "n" was likely to be both difficult and time consuming, and since the stated reasons for withdrawal appeared to be reasonably valid, it was decided, with the approval of the advisory committee, not to attempt a follow-up on the dropouts.

The Graduate

The graduate, as noted, tended to have a higher high school g.p.a. than the dropout, and was somewhat more likely to have had some (a year or more) post high school education before entering the program. Otherwise, there was no significant difference between the graduate and the dropout variables examined.

Follow-up on Graduates

A number of factors were considered in designing the follow-up phase of the study. (For reasons already noted, it was decided not to attempt a follow-up on the dropout.)

The difficulty of achieving a meaningful proportion of return on questionaires is a major problem of social research today. Questionaires have proliferated in today's society to the extent that many private citizens tend to

consider them in the category of "junk mail." Moreover, questionaires tend to be long, complicated, and tedious, aggrevating the natural inclination to toss them in the waste basket. Accordingly three decisions were taken to insure, hopefully, a meaningful return:

1. The questionaire must be short, unambiguous, and simple to complete. This called for a small number of questions, the answers to which would have real meaning for the study.
2. A personal, perhaps somewhat novel approach would be made to pique the interest of the graduate, to persuade her to cooperate.
3. A significant effort would be expended to locate the correct current address of the graduates to be polled.

The advisory committee considered the possible questions and decided there were three of sufficient importance to be included in the questionaire:

1. An evaluation by the graduate of how well the program had prepared her in four areas of the profession:
    a. Technical aspects of nursing.
    b. Organizational aspects of nursing.
    c. Recognizing and dealing with the psycho-social needs of patients.
    d. Recognizing and dealing with the physical needs of patients.
2. An open-ended question solicitng the graduate's recommendation(s) for improving the nursing program.
3. An opinion from the graduates as to the validity of the "Stated Reasons for Withdrawal" given by the dropouts and discussed in the previous section.

The decision to ask this last question necessitated the preparation of separate questionaires for each of the two classes. Copies of the two questionaires are included as Appendix A and Appendix B to this report. They appear to have met the requirements of brevity, lack of ambiguity, and simplicity.

It was decided to poll a 50% sample of both classes. Accordingly, a random number table was applied against each class roster and the low eleven

numbers in each became the sample. The file folders of each of these graduates were examined for the latest address and for the address of the parents. The facilities of the Telephone Company and the Post Office as well as communications with parents and with hospitals to which graduates were known to have applied for nursing positions were all employed to determine the current address. A number of graduates had married and consequently changed their names since graduation.[1] In one case (Class of 1967) the current address could not be obtained. The total mail out was, therefore, to ten graduates of the Class of 1967, eleven students in the Class of 1966.

In an attempt to overcome the reluctance to return questionaires apparantly built into our contemporary society a carefully worded, individually typed letter was mailed to each graduate in the sample. This letter did not contain the questionaire. Rather it solicited the cooperation of the graduate, assured her that her help in completing the study was important, informed her that the questionaire was brief, and went so far as to offer to administer the questionaire over the telephone if she desired.

A typed note of reply to the research director which could be quickly executed by the graduate was included as well as a business-reply envelope for her convenience. Sample copies of the letter and the return note are included as Appendix C and Appendix D.

Return on this mail out was less than over-whelming. In the Class of 1966, 8 of 11 replied indicating their willingness to cooperate. In the Class of 1967, the corresponding figure was 6 of 10. Questionaires were mailed out promptly as indications of willingness to cooperate were received. After a suitable time, follow-up mailings of questionaires with appropriate cover letters were mailed to both those who had indicated a willingness to cooperate but had not returned questionaires and to those who had not replied to the initial letter. The final results were:

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1. Two graduates with the same first names had married brothers hence both now have the same names.

	Class of 1966	Class of 1967
Returned questionaires	8	8[1]
Indicated willingness to cooperate, but failed to return questionaire	1	0
Replied to neither first nor second mailing	2	2
Address unknown		1
Total	11	11

These results (73% return) were less than hoped for, but were, nevertheless, felt to be complete enough to warrant an analysis.

Analysis of Follow-Up

The graduates who returned questionaires agreed generally with the conclusion of the committee that the reasons given by their classmates who dropped-out for leaving the program were the true reasons.[2] Only 5 (31%) of the graduates returning questionaires indicated serious reservations about the reasons given for dropping out.

The grades assigned to the nursing program by the graduates tended to be high:

Class of 1966

	Grades					GPA
	A	B	C	D	F	
Technical aspects of nursing		4	2	2		2.25
Organizational aspects of nursing	1	4	3			2.75
Handling psycho-social needs of patients	5	2	1			3.50
Handling physical needs of patients	3	4	1			3.25
						2.94

1. One graduate in the Class of 1966, two graduates in the Class of 1967 returned their completed questionaires, received in the follow-up mail-out, without indicating their willingness to cooperate.

2. See page 10, supra.

Class of 1967

	Grades					GPA
	A	B	C	D	F	
Technical aspects of nursing	1	4	3			2.75
Organization aspects of nursing	3.5		3.5	1		2.75
Handling psycho-social needs of patients	4	3	1			3.38
Handling physical needs of patients	2	6				3.25
						3.03

Both Classes Combined

	A	B	C	D	F	GPA
Technical aspects of nursing	1	8	5	2		2.50
Organizational aspects of nursing	4.5	4	6.5	1		2.75
Handling psycho-social needs of patients	9	5	2			3.44
Handling physical needs of patients	5	10	1			3.25
						2.98

There is no statistically significant difference between the grades assigned by the respective classes. Generally, lower grades were assigned to the technical aspects of nursing, defined in the questionaire as, "How to carry out specific nursing procedures." This was not entirely unexpected since the young, inexperienced practioner is perhaps more concerned with techniques than with the other aspects. In any event the difference, one-quarter of a letter grade, is not seen as significant.

The responses to the open-ended question, "what recommendation(s) do you have for improving the nursing program?" were many and varied. Four of the graduates suggested greater attention to the psycho-social needs of the students themselves while they were undergoing nurses' training. Four suggested more attention being given to leadership or training as a "charge nurse;" two of these recognized that this was outside the scope of the program as presently conceived, however, they both pointed out that there were times when one is "the only RN on the floor" and must therefore be in charge. In this same vein two of the graduates suggested that more emphasis be

given on the care of groups of patients while one graduate suggested more "responsibility training" to prepare the graduate for working on her own.

Three graduates emphasized the value of the theoretical aspect of the program while one graduate suggested less emphasis on theory. Two graduates suggested more practical experience and two others suggested more emphasis on the technical aspects of nursing.

With respect to specifics, one graduate suggested more clinical experience in aseptic techniques and more emphasis on pharmacology. Another suggested that surgical nursing and obstetric nursing be interegated into an area sequence course; in her judgment surgical nursing contained too much material to cover in one semester while obstetric nursing contained too little. One graduate suggested pediatrics be placed later in the sequence while another thought that the course in nursing trends was a waste of time except for the legal and ethical aspects of nursing. Another suggested more study on geriatrics.

Individual suggestions were made for closer supervision, for more problem solving, for more oral versus written exams, and for teaching in a higher intellectual level. One graduate believed that the program was too short while another suggested adding a male instructor to the staff. Suggestions were also made for more hospital experience in procedures (e.g. irrigations, tube feedings) and for more instruction on the administration of drugs.

Several of these suggestions have already been dealt with. In the conversion to the quarter system adjustments to the amount of material to be covered in obstetrical nursing and surgical nursing have been made. Pediatric nursing has been placed later in the sequence. The comments on need for more attention to the psycho-social needs of the students will be noted by all members of the nursing faculty as well as by the Psych 50 instructor.

The comments relative to leadership and responsibility training require some consideration. The nursing program at De Anza College is designed to produce a competent general staff nurse. Time does not permit training in the theory or practice of supervision. A smattering of such training is likely to be useless if not downright dangerous in giving the graduate the

impression she has been trained to be a "charge nurse" when in fact she has not. Nevertheless, given a shortage of registered nurses it is inevitable the time will arise when one is "the only RN on the floor" and must be in charge. It would appear then that it is only fair to impress upon the students that they are being trained to be general staff nurses, not supervisors, but that there will likely be times when they will be required to act temporarly as "charge nurses."

Discussion as to proper attitudes and actions under these circumstances should follow so that the graduate will be prepared for the inevitable emergency situation when it does arise. This has been incorporated in Nursing 67, "Trends and Opportunities in Nursing."

Conclusions And Recommendations

As stated earlier, based on the data available in this brief study, it would appear that - -

1. No change in the requirement for a high school g.p.a. of 2.0 as a prerequisite for admission to the program is indicated.
2. Similarly, no change in the requirement for a minimum ACT composite score of 15 is indicated.
3. The requirement for chemistry as a prerequisite should be restated, "Completion of a laboratory course in chemistry at the high school or college level," or words to that effect, without specific reference to a minimum grade of "C".
4. In the event it becomes necessary or convenient to rank candidates for admission to the program, high school g.p.a. may be used with statistical justification, in whole or in part, in such ranking.
5. The use of ACT scores, component or composite, for ranking of candidates for admission is not justified statistically.
6. A trend may be developing in the scores made on the Psychiatric Nursing Test which could have implications for the nursing faculty. An analysis of the scores posted by the Class of 1968 should be made as soon as they are available to determine if a trend is in fact developing.
7. The records being kept by the Director of Nursing of exit interviews with students dropping out of the program are complete and appear

to be fairly valid.

8. An overwhelming proportion of the dropouts occurred during the freshman year. About three-quarters of those who dropped out indicate that they did so because of failure in an academic or nursing subject or because of dissatisfaction or alienation with college or with nursing.
9. Graduates responding to the questionaire assigned rather high grades in their evaluations of the nursing program. The lowest grade assigned was to coverage of the technical aspects of nursing, but this difference was small, amounting to one-quarter of a letter grade.
10. Three graduates responding to the questionaire suggested greater attention to the psycho-social needs of the students. This should be noted by the nursing faculty and by the Psych. 50 instructor.
11. A total of seven graduates responding to the questionaire expressed concern in the area of leadership or responsibility training. The program is now designed to produce competent general staff nurses. The curriculum is crowded into two academic years plus one summer session. The training of nurses to function in supervisory positions is just not feasible in this length of time. Nevertheless, the students should be warned that there will be occasions when the graduate will be "the only RN on the floor" and therefore must be in charge. Instruction to this effect, together with time for discussion has been included in the Nursing 67 syllabus.
12. The detailed data on which this study is based have been filed with the Director of Nursing.

Foothill Junior College District
Registered Nursing Study

Spring 1968

Questionaire - Class of 1966

1. Nineteen of your classmates who started the program with you in the fall of 1964 failed to graduate. As each dropped out she gave a reason. These reasons can be grouped as follows:

External reasons (Husband transferred, family moved, pregnancy, family problems, health)	5
Dissatisfaction/Alienation (Dislikes nursing, dislikes college, unsure of career goals, load too heavy)	4
"D" or below in academic (non-nursing) subjects,	7
"D" or below in nursing subjects	3
Total	19

Research has shown that students tend to give socially acceptable reasons for dropping out rather than genuine reasons. Examining the table above, and thinking back on your days at Foothill, do you think these nineteen students gave the real reason for dropping out?

_____Yes _____No

Would you care to expand on your answer or comment further on the dropout problem?

2. We would like for you to give the Foothill nursing program grades in the teaching of four component areas of the profession of nursing. Please use the familiar A-B-C-D-F scale with "C" as adequate, "D" as barely passing, etc.

	Grade
Technical aspects of nursing (How to carry out specific nursing procedures)	_____
Organizational aspects of nursing (Planning and implementing nursing care for groups of patients; integrating work of auxiliary personnel)	_____
Recognizing and dealing with the psycho-social needs of patients.	_____
Recognizing and dealing with the physical needs of patients.	_____

3. What recommendation(s) do you have for improving the nursing program?

_____R.N.

APPENDIX A

Foothill Junior College District

Registered Nursing Study

Spring 1968

Questionaire - Class of 1967

1. Twenty-two of your classmates who started the program with you in the fall of 1965 failed to graduate. As each dropped out she gave a reason. These reasons can be grouped as follows:

External reasons (Husband transferred, family moved, pregnancy, family problems, health)	4
Transferred to another program (Dental assisting, vocational nursing)	2
Dissatisfaction/Alienation (Dislikes nursing, dislikes college, unsure of career goals, load too heavy)	9
"D" or below in academic (non-nursing) subject(s)	6*
"D" or below in nursing subject(s)	6
Total	22

* Includes five who also had "D" or below in nursing subjects.

Research has shown that students tend to give socially acceptable reasons for dropping out rather than genuine reasons. Examining the table above, and thinking back on your days at Foothill, do you think these twenty-two students gave the real reason for dropping out?

_____Yes _____No

Would you care to expand on your answer or comment further on the dropout problem?

2. We would like for you to give the Foothill nursing program grades in the teaching of four component areas of the profession of nursing. Please use the familiar A-B-C-D-F scale with "C" as adequate, "D" as barely passing, etc.

	Grade
Technical aspects of nursing (How to carry out specific nursing procedures)	_____
Organizational aspects of nursing (Planning and implementing nursing care for groups of patients; integrating work of auxiliary personnel)	_____
Recognizing and dealing with the psycho-social needs of patients	_____
Recognizing and dealing with the physical needs of patients.	_____

3. What recommendation(s) do you have for improving the nursing program?

_____R.N.

APPENDIX B

Date_____

Mrs._____
_____
_____

Dear Mrs. _____:

We are engaged in a study aimed at improving our nursing program. A major phase of this study is dependant on the cooperation of a number of our recent graduates in giving us the benefit of their experiences and observations.

Now we don't like long questionaires either, and sometimes we find the questions they pose just don't fit. So we've taken steps:

1. Our questionaire is short!
2. You don't actually have to fill it out unless you want to! let us know your phone number and when you expect to be at home. We'll call and read you the questions and you can give us the answers (or criticize the questions if you'd like) over the phone. We'll do the rest, and be thankful for your cooperation.

We've even written your answer and included a return envelope. You can merely check your answer and give us your current address and phone number. We'll do the rest.

Sincerely,

James W. Keene
Director of Institutional Research

JWK:pt
Encl (2)

APPENDIX C

_____

Dear Dr. Keene,

_____ Please telephone. I'm usually home-----

_____ Please mail me the questionaire. Since it's short, I'll fill it in and return it.

_____, R.N.

_____
address

_____
city State Zip

( )_____
area code telephone no.

APPENDIX D